2012 Annual Drinking Water Quality Report
Seymour Johnson Air Force Base

Public Water Supply (PWS) ID# 04-96-055

We are pleased to present to you this year's Annual Drinking Water Quality Report for Seymour Johnson AFB (SJAFB). This report is a snapshot of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve and protect our water resources. We are committed to ensuring the quality of your water and to provide you with this information, because informed customers are our best allies. We want our valued customers to be informed about their water utility.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses; organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Our Sources of Drinking Water

Seymour Johnson AFB buys its water from the City of Goldsboro (PWS ID # 04-96-010). The City of Goldsboro's water source is a surface supply from the Neuse River. The City's alternate water source is a surface supply from the Little River, which was not used in 2012.

The North Carolina Department of Environment and Natural Resources (DENR), Public Water Supply (PWS) Section, Source Water Assessment Program (SWAP) conducted assessments for all drinking water sources across North Carolina. The purpose of the assessments was to determine the susceptibility of each drinking water source (well or surface water intake) to Potential Contaminant Sources (PCSs). The results of the assessment are available in SWAP Assessment Reports that include maps, background information and a relative susceptibility rating of Higher, Moderate or Lower.

The relative susceptibility rating of each source for Seymour Johnson AFB was determined by combining the contaminant rating (number and location of PCSs within the assessment area) and the inherent vulnerability rating (i.e., characteristics or existing conditions of the well or watershed and its delineated assessment area). The results of the February 2, 2010 SWAP are that the Neuse River has a susceptibility rating of **Higher** and the Little River has a susceptibility rating of **Higher**. The complete SWAP Assessment report may be viewed online at http://www.ncwater.org/pws/swap. Note that because SWAP results and reports are periodically updated by the PWS Section, the results available on this web site may differ from the results that were available at the time this CCR was prepared. If you are unable to access your SWAP report on the web, please mail a written request to: Source Water Assessment Program - Report Request, 1634 Mail Service Center, Raleigh, NC 27699-1634, or email request to swap@ncmail.net. Please indicate your system name, PWSID, and provide your name, mailing address, and phone number. If you have any questions about the SWAP report, please contact the Source Water Assessment staff by phone at 919-715-2633.

It is important to understand that a susceptibility rating of "**Higher**" does not imply poor water quality, only the systems' potential to become contaminated by PCSs in the assessment area.

Monitoring of Our Drinking Water

We continually monitor our drinking water for contaminants. Our water is safe to drink. Seymour Johnson AFB did not receive any drinking water violations from either North Carolina or the EPA. The Bioenvironmental Engineering Flight (BEF) is responsible for monitoring drinking water quality on Seymour Johnson Air Force Base. Since the base purchases its drinking water, the city of Goldsboro fulfills most of the EPA mandated monitoring requirements. In addition to the monitoring that is completed by the city of Goldsboro, BEF personnel sample for bacteriological contaminants, disinfectant and disinfectant byproduct contaminants, lead, copper, and asbestos. BEF accomplishes this additional monitoring because each of these contaminants may be affected by the characteristics of the distribution system on the installation. The contaminants monitored only by the city are affected primarily by the quality of the source water and do not change as the water moves from the city's distribution system to the base's distribution system.

The tables below list all the drinking water contaminants that we detected in the last round of sampling for the particular contaminant group. The presence of contaminants does not necessarily indicate the water poses a health risk. **Unless otherwise noted, the data presented in this table is from testing done January 1 through December 31, 2012.**

Definitions of Key Terms

To gain a better understanding of the content of this report, several key terms and acronyms/terms used in this report must be defined. They are as follows:

Not applicable (NA) - Information not applicable/not required for that particular water system or for that particular rule.
Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

The water at Seymour Johnson Air Force Base is analyzed for some contaminants (including lead and copper) which are governed by action levels, and not MCLs. Additionally, our water is analyzed for contaminants that are subject to treatment techniques. Therefore, the following definitions of these terms are provided:
Treatment Technique (TT) - A required process intended to reduce the level of a contaminant in drinking water.
Action Level (AL) - The concentration of a contaminant, which, if exceeded, triggers treatment, or other requirements that a water system must follow.

ppm	parts per million; a unit of measure equivalent to a single penny in $10,000
ppb	parts per billion; a unit of measure equivalent to a single penny in $10,000,000
mg/L	milligrams per liter; a unit of measure equivalent to part per million (ppm)
pCi/L	picocuries per liter; a measure of radioactivity in water
NTU	nephelometric turbidity unit; a measure of the clarity of water
TTHMs	total trihalomethanes; byproducts of drinking water disinfection
HAA5	total haloacetic acids; byproducts of drinking water disinfection
MRDL	maximum residual disinfectant level - the highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
MRDLG	maximum residual disinfectant level goal - the level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
Level Found	laboratory analytical result for a contaminant; this value is evaluated against an MCL or AL to determine compliance.
Range	the range of the highest and lowest analytical values of a reported contaminant.
PWSID	Public Water System Identification
SMCL	Secondary MCLs for various water quality indicators are established to protect public welfare

Extra Note: MCLs are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Microbiological Contaminants

Contaminant	Sample Date	MCL Violation? N/Y	Your Water	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria (presence or absence)	Monthly 2012	N	Highest Month(s): 0 positive (0 / 12 samples in 2012)	0	1 positive monthly sample or 5% monthly samples are positive	Naturally present in the environment
Fecal Coliform or E. coli (presence or absence)	Monthly 2012	N	Highest Month(s): 0 positive (0 / 12 samples in 2012)	0	0 (Note: The MCL is exceeded if a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or *E. coli* positive)	Human and animal fecal waste

Turbidity*

Contaminant (units)	MCL Violation Y/N	Your Water	MCLG	MCL	Likely Source of Contamination
Turbidity (NTU)	N	0.25 maximum 100% under 0.3	N/A	TT = 1 NTU TT = percentage of samples ≤ 0.3 NTU	Soil runoff

*** Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. The turbidity rule requires that 95% or more of the monthly samples must be less than or equal to 0.3 NTU. Table above presents the results of monitoring performed by the City of Goldsboro for the reporting period of 2012.**

Inorganic Contaminants*

Contaminant (units)	Sample Date	MCL Violation? N/Y	Your Water	Range Low	Range High	MCLG	MCL	Likely Source of Contamination
Fluoride (ppm)	May 2012	N	0.74	N/A		4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

***Table above presents the results of monitoring performed by the City of Goldsboro for the reporting period of 2012.**

The City of Goldsboro also monitors for unregulated contaminants. Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurence of unregulated contaminants in drinking water and whether future regulation is warranted.

Unregulated Inorganic Contaminants*

Contaminant (units)	Sample Date	Your Water	Range Low	Range High	Secondary MCL
Sulfate (ppm)	May 2012	48.6	N/A		250

***Table above presents the results of monitoring performed by the City of Goldsboro for the reporting period of 2012.**

Lead and Copper Contaminants

Contaminant (units)	Sample Date	MCL Violation? N/Y	Your Water	# of sites found above the AL	MCLG	MCL	Likely Source of Contamination
Copper (ppm) (90^{th} percentile)	Sep 2010	N	90^{th} Percentile: 0.135 All samples below AL	0	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb) (90^{th} percentile)	Sep 2010	N	90^{th} Percentile: ND* All samples below AL	0	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits

***Note: Lead was "NOT DETECTED" (ND) above the Required Reporting Limit for all samples taken during the 2010 Lead and Copper monitoring period.**

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. SJAFB is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water

has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

Radioactive Contaminants*

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	MCLG	MCL	Likely Source of Contamination
Beta/photon emitters (pCi/L)	Nov 2005	N	6.5	0	50	Decay of natural and man-made deposits

*** Note: The MCL for beta particles is 4 mrem/year. EPA considers 50 pCi/L to be the level of concern for beta particles. Table above presents the results of monitoring performed by the City of Goldsboro for the reporting period of 2012.**

Disinfectant By-products Precursors Contaminants*

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range Low High	MCLG	MCL	Likely Source of Contamination
Total Organic Carbon (ppm) (TOCs)-RAW	Monthly 2012	N	7.75	5.4-12.6	N/A	TT	Naturally present in the environment
Total Organic Carbon (ppm) (TOCs)-TREATED	Monthly 2012	N	3.42	2.6-4.26	N/A	TT	Naturally present in the environment

***Table above presents the results of monitoring performed by the City of Goldsboro for the reporting period of 2012.**

Disinfectants and Disinfection Byproducts Contaminants

Contaminant (units)	MCL Violation Y/N	Your Water (AVG)	Range Low High	MCLG	MCL	Likely Source of Contamination
TTHM (ppb) [Total Trihalomethanes]	N	53.8	36-78	N/A	80	By-product of drinking water chlorination
HAA5 (ppb) [Total Haloacetic Acids]	N	39.1	N/D-66	N/A	60	By-product of drinking water disinfection
Chloramines (ppm)	N	2.26	1.00-3.10	MRDLG = 4	MRDL = 4	Water additive used to control microbes

Secondary Contaminants, required by the NC Public Water Supply Section, are substances that affect the taste, odor, and/or color of drinking water. These aesthetic contaminants normally do not have any health effects and normally do not affect the safety of your water**.**

Water Characteristics Contaminants*

Contaminant (units)	Sample Date	Your Water	Range Low/High	Secondary MCL
Manganese (ppm)	May 2012	0.022	N/A	0.05
Sodium (ppm)	May 2012	37.2	N/A	N/A
pH	May 2012	7.4	N/A	6.5 to 8.5

***Table above presents the results of monitoring performed by the City of Goldsboro for the reporting period of 2012.**

Compliance with the National Primary Drinking Water Regulations

There were no violations of the National Primary Drinking Water Regulations at Seymour Johnson AFB for the period of this report.

Public Involvement

Please refer any questions regarding this report to Maj Amber Millerchip, Chief of the 4th Fighter Wing Public Affairs office, at (919) 722-0027.